REMARKS

Reconsideration is requested for claims 1-20, 114-116.

Initially, the undersigned wishes to thank Examiners Semunegus and Carrone for their time, attention, and consideration during the interview that was conducted at the U.S. Patent and Trademark Office on November 19, 2003. During the interview, the Examiners agreed that the pending claims were allowable over the prior art and requested that the applicants submit a response to the most recent Official Action outlining the points discussed during the interview.

Claims 1-5, 20, and 114-116 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,726,296 to *Leshner* in view of U.S. Patent No. 2,862,446 to *Ringdal*. Claims 6-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Ringdal* and *Leshner* in view of U.S. Patent No. 3,144,827 to *Boutwell*.

Leshner is cited as disclosing a cartridge casing body having a first end and a second end, the cartridge casing body forming an open tube between the first end and the second end, and a projectile attached to the first end of the cartridge casing body, the first end of the cartridge casing body being closed only by the projectile (see FIG. 5). It is acknowledged that *Leshner* does not disclose that the cartridge casing body is injection molded around at least a portion of the projectile. The patent is directed to overcoming problems with prior art plastic cases for explosive rounds that were stressed during an interference fit between the base and the case. The patent discloses that a metal base is retained in the casing by an interference fit including microgrooves on the base and that

may or may not include a stress modulation ring to secure the base and the casing. It is asserted that the plastic in the casing flows, cold, into the microgrooves and stress is relieved in the plastic casing.

Leshner et al. does not expressly describe how the projectile is lodged in the casing but only discloses joining members (i.e., the base and the casing) by an interference fit. If the projectile in *Leshner* is lodged in the casing by an interference fit, it is necessary that the casing be under at least some stress to provide an acceptable seal between the projectile and the casing.

Ringdal is cited as disclosing injection molding a cartridge casing body around at least a portion of a projectile. The ammunition article disclosed in *Ringdal* requires that the projectile be supported relative to the casing by a transverse web portion 6 of the casing that closes the first end of the casing and by a bent end 9 of an envelope of the projectile that is secured in the portion 6. There is nothing in the prior art that suggests any likelihood of success if the transverse web is removed. All of the prior art that discloses injection molding a casing around a projectile requires some form of structure similar to that shown in *Ringdal*.

Also, when a casing is injection molded around a portion of a projectile, the fit between the casing and the projectile will be a custom fit and it is not possible to provide stress in the casing to hold the projectile. *Ringdal* discloses that a projectile is held in place relative to the casing by the transverse web 6 and the bent end 9 of the envelope of the projectile. If one of ordinary skill in the art had attempted to modify an ammunition article

with a projectile that is held relative to a plastic casing by an interference fit in view of *Ringdal* so that the casing is molded around the projectile, one would have done so only by providing a transverse web and a bent end of an envelope of the projectile as in *Ringdal* because the force developed through the interference fit would not be present to hold the projectile in place relative to the casing.[1] This would yield a different structure than is claimed in the present application.

In view of the fact that *Leshner* and *Ringdal* would not have been combined in the manner asserted in the Official Action, it is respectfully submitted that the rejection of the claims based on the combination of *Leshner* and *Ringdal* is improper. Withdrawal of the rejection is cordially urged.

The other reference cited in the Official Action, *Boutwell*, is submitted to cure none of the defects of the other cited references, and has been discussed in other responses and is not discussed further here.

It is respectfully submitted that all of the pending claims, claims 1-20 and 114-116, are in condition for allowance. Allowance is cordially urged.

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[1]Note that *Ringdal* does not disclose that the flange 8 and corresponding groove is sufficient to hold the projectile in place. The flange and groove are used together with the wall 6 and the bent in rear end 9 of the envelope of the projectile.

If the Examiner should be of the opinion that a telephone conference would be helpful in resolving any outstanding issues the Examiner is urged to contact the undersigned.

Respectfully submitted,

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Date: Nov. 19, 2003

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